PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To: see form PCT/ISA/220	# PCT WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43*bis*.1)

	Date of mailing *(day/month/year)* see form PCT/ISA/210 (second sheet)
Applicant's or agent's file reference see form PCT/ISA/220	**FOR FURTHER ACTION** See paragraph 2 below

International application No. PCT/GB2004/000429	International filing date *(day/month/year)* 03.02.2004	Priority date *(day/month/year)*

International Patent Classification (IPC) or both national classification and IPC G06F9/44

Applicant GENIENT LTD

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1. This opinion contains indications relating to the following items:

   ☒ Box No. I   Basis of the opinion

   ☒ Box No. II   Priority

   ☐ Box No. III   Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

   ☐ Box No. IV   Lack of unity of invention

   ☒ Box No. V   Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

   ☐ Box No. VI   Certain documents cited

   ☒ Box No. VII   Certain defects in the international application

   ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

   If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

   If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

   For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer del Chiaro, S Telephone No. +49 89 2399-7390

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/000429

Box No. I	Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

   a. type of material:

   ☐ a sequence listing

   ☐ table(s) related to the sequence listing

   b. format of material:

   ☐ in written format

   ☐ in computer readable form

   c. time of filing/furnishing:

   ☐ contained in the international application as filed.

   ☐ filed together with the international application in computer readable form.

   ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

Box No. II	Priority

1. ☒ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V   Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-129
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-129
Industrial applicability (IA)	Yes:	Claims	1-129
	No:	Claims	

2. Citations and explanations

   see separate sheet

Box No. VII   Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

   see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2004/000429

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1   Documents

1.1   Reference is made to the following documents:

D1: US 2003/079047 A1 (FITTS SEAN M ET AL) 24 April 2003

D2: CHEN CHEN ET AL: "Configuration-level programming of distributed applications using implicit invocation" TENCON '94. IEEE REGION 10'S NINTH ANNUAL INTERNATIONAL CONFERENCE. THEME: FRONTIERS OF COMPUTER TECHNOLOGY. PROCEEDINGS OF 1994 SINGAPORE 22-26 AUG. 1994, NEW YORK, NY, USA,IEEE, 22 August 1994 (, pages 43-49, ISBN: 0-7803-1862-5

D3: D. WOODS: "User Interfaces: Centered around a user's role" 22 December 2003,
www.sap.info/index.php4?ACTION=noframe&url=http://www.sap.info/public/en/article.php4/Article-238093fd05c534262c/en

D4: G TRIVELLI SAP: "SAP xApps-X-RPM (Resource & Program Management)" September 2003,
www50.sap.com/andeancarib/company/events/presentaciones/2003/septiembre/n etweaver/partners/Parte1_10-SAP%20NetWeave r-Partner_xApps-xRPM.pdf

2   Clarity of claims 1, 17, 48, 49, 50, 80, 96, 97, 98, 103, 104, 105, 110, 119, 128 and 129, Article 6 PCT

2.1   The present formulation of the independent claims is misleading and obscure therefore rendering the subject matter for which protection is sought of the present application totally unclear in violation of Article 6 PCT, the reason being as following: The present set of claims comprises multiple independent claims in the same category: claims 1, 13, 17, 97, 98 and 110 are method claims and claims 49, 50, 80, 96, 104, 105, 119 and 129 are apparatus claims, claims 48, 103 and 128 refer to a data carrier carrying computer program code.

Each of said method claims introduces at least one feature not present in the other claims:

- Claim 1: a method of configuring a server to provide at least one composite user interface.
- Claim 17: modelling at least part of a user interface provided by the or each source application.
- Claim 97: generate a composite application model.
- Claim 98: monitoring operation o the composite user interface.
- Claim 129: selecting a composite user interface from a plurality of predefined composite user interfaces.

The same apply to the apparatus claims.

2.2 It is clear from the PCT that the invention for which protection is sought must be clearly defined in the claims (Article 6) and that such a definition is accomplished by specifying all essential technical features in each independent claim (Rule 6.3 PCT). It follows that when, as in this case, only one invention is disclosed and a technical feature is included in one independent claim but there is no equivalent in another independent claim, it is not clear what technical features are actually necessary for defining the invention, thus putting the matter for which protection is sought in doubt and in violation of Article 6.

2.3 Furthermore a PCT application may contain more than one independent claim in a particular category only if the subject matter claimed falls within one or more of the exceptional situations set out in the PCT guidelines Part II, 5.14 (1-3).

2.4 Standing the above clarity objection the following can be said about inventiveness and novelty of the independent claims:

3 **Inventiveness of claims 1, 17, 48, 49, 50, 80, 96, 97, 98, 103, 104, 105, 110, 119, 128 and 129, Article 33(3) PCT**

4 Document D1, which is considered to represent the closest prior art for the subject matter of claim 1, discloses (the references in parentheses applying to this document):

A method of configuring a server to provide at least one composite user interface to at least on source application (page 2, right column, paragraphs 36-37), the composite interface comprising a plurality of user interface elements provided by said at least one source application (page 2, right column, paragraphs 38-39),

4.1 The method defined in independent claim 1 differs from that disclosed in D1 in that:
- a model of the composite user interface is processed to generate rules for communication between the composite user interface and at least one source application.

4.2 The objective technical problem to be solved by the present invention may therefore be regarded as how to establish communication rules between the composite user interface and the source applications.

4.3 Document D2 discloses a tool in which composite application specification generated form the application model and source application interaction specifications are analysed to generate communication rules (for instance the type of events that are distributed from the composite application to the source and how to change then appropriately page 48, right column, line 35 to page 49, left column, line 32 and page 47, right column, lines 42)
Document D2 discloses a solution to the above identified objective technical problem (in the same kind of system as the one of the present application). The person skilled in the art looking for a solution to the identified objective technical problem would consider the teaching of D2 together with the features of D1 therefore coming to the subject matter of claim 97 without the help of any inventive activity

4.4 Therefore the subject matter of claim 1 does not involve an inventive step in the sense of article 33(3) PCT.

4.5 Since claim 49 and 80 relate to an apparatus having only features that correspond to the steps of method claim 1, the objections concerning lack of inventiveness of claim 1 apply accordingly.

4.6 Since claim 48 relates to a data carrier carrying computer program code for executing

the steps of method claim 1, the objections concerning lack of inventiveness of claim 1 apply accordingly.

5   Document D3, which is considered to represent the closest prior art for the subject matter of claim 17, discloses (the references in parentheses applying to this document):

A method of generating model data representing a model of a composite user interface comprising a plurality of user interface elements provided by at least one source application (page 2, lines 4-19 to create a model composite application with models of components), the method comprising:
modelling at least part of a user interface provided by the or each source application (page 1, lines 52-54 model the user interface of an application);

5.1 The method defined in independent claim 1 differs from that disclosed in D3 in that:
-    a model of the relationship between the at least part of the user interface provided by the source application and the composite user interface is provided.

5.2 The objective technical problem to be solved by the present invention may therefore be regarded as how to establish communication rules between the composite user interface and the source applications.

5.3 Document D2 discloses a tool in which composite application specification generated form the application model and source application interaction specifications are analysed to generate communication rules (for instance the type of events that are distributed from the composite application to the source and how to change then appropriately page 48, right column, line 35 to page 49, left column, line 32 and page 47, right column, lines 42)
Document D2 discloses a solution to the above identified objective technical problem (in the same kind of system as the one of the present application). The person skilled in the art looking for a solution to the identified objective technical problem would consider the teaching of D2 together with the features of D3 therefore coming to the subject matter of claim 97 without the help of any inventive activity

5.4 Therefore the subject matter of claim 17 does not involve an inventive step in the sense of article 33(3) PCT.

5.5 Since claim 50 relates to an apparatus having only features that correspond to the steps of method claim 17, the objections concerning lack of inventiveness of claim 17 apply accordingly.

6 Document D4, which is considered to represent the closest prior art for the subject matter of claim 96, discloses (the references in parentheses applying to this document):

A computer apparatus for generating a composite user interface for communication with a plurality of source application (page 7, sap Netweaver through the composite application framework permits the construction of composite application based on existing applications parts or data see also page 11 and the composite application framework), the apparatus comprising:

modelling means adapted to generate model data representing a model of said composite user interface in response to user input (UI modelerer, UI metadata and UI components page 11 and the composite application framework);

storage means for storing said model;

generating means for reading said model from said storage means, and generating a configuration data structure (UI metadata);

6.1 The apparatus defined in independent claim 96 differs from that disclosed in D4 in that:

- there are means adapted to receive a request from a composite user interface;
- there are generating means for generating a source application request to at least one of said source application in response to said request, in accordance with data stored in said configuration data structure;
- there are transmitting means for transmitting said source application request to said at least one of said source application.

6.2 The objective technical problem to be solved by the present invention may therefore be regarded as how to allow communication between the composite application and

the source applications.

6.3 Document D1 discloses generating a request from a web browser (and application made of different services coming from different web services hence a composite application, see paragraph 22) to a CAP (composite application platform) which interprets the request and forwards them after modification to the appropriate web service application which process the request and send back and answer (paragraph 41 and paragraphs 50-55)

Document D1 discloses a solution to the above identified objective technical problem. The person skilled in the art looking for a solution to the identified objective technical problem would therefore consider the teaching of D1 together with the features of D4 straightforwardly coming to the subject matter of claim 96 without the help of any inventive activity.

6.4 Therefore the subject matter of claim 96 does not involve an inventive step in the sense of article 33(3) PCT.

7 Document D3, which is considered to represent the closest prior art for the subject matter of claim 97, discloses (the references in parentheses applying to this document):

A method for modelling and generating a composite user interface comprising user interface elements provided by at least one source application comprising: generating a source application model for each of the at least one source applications (page 1, lines 52-54 model the user interface of an application); generating a composite application model using the or each source application model (page 2, lines 8-10 and lines 16-20 UI of composite application defined as abstract model and made of components or services offered by enterprise applications which in this case represent the source applications).

7.1 The method defined in independent claim 97 differs from that disclosed in D3 in that:
- the composite application model is processed to generate rules for communication between said composite application and the or each source application.

7.2 The objective technical problem to be solved by the present invention may therefore

be regarded as how to establish communication rules between the composite user interface and the source applications.

7.3 Document D2 discloses a tool in which composite application specification generated form the application model and source application interaction specifications are analysed to generate communication rules (for instance the type of events that are distributed from the composite application to the source and how to change then appropriately page 48, right column, line 35 to page 49, left column, line 32 and page 47, right column, lines 42)

Document D2 discloses a solution to the above identified objective technical problem (in the same kind of system as the one of the present application). The person skilled in the art looking for a solution to the identified objective technical problem would consider the teaching of D2 together with the features of D3 therefore coming to the subject matter of claim 97 without the help of any inventive activity.

7.4 Therefore the subject matter of claim 97 does not involve an inventive step in the sense of article 33(3) PCT.

8 Document D3, which is considered to represent the closest prior art for the subject matter of claim 93, discloses (the references in parentheses applying to this document):

A method for providing a composite user interface comprising a plurality of use interface elements provided by at least on source application the method (page 1, lines 1-14) comprising:

8.1 The method defined in independent claim 98 differs from that disclosed in D3 in that:
- the composite user interface is monitored to obtain management data.

8.2 The objective technical problem to be solved by the present invention may therefore be regarded as how to obtain data from the composite user interface in which the user is interested.

8.3 Document D3 discloses that the composite application can show relevant information for each different part of a process in which the user is interested or participating

(page 1, lines 1-3) this means that it can also provide monitoring data (in particular data regarding the application management).

The same Document D3 discloses then a solution to the above identified objective technical problem hence the person skilled in the art looking for a solution to the identified objective technical problem would straightforwardly come to the subject matter of claim 98 without the help of any inventive activity.

8.4 Therefore the subject matter of claim 98 does not involve an inventive step in the sense of article 33(3) PCT.

8.5 Since claim 104 and 105 relate to an apparatus having only features that correspond to the steps of method claim 98, the objections concerning lack of inventiveness of claim 98 apply accordingly.

8.6 Since claim 103 relates to a data carrier carrying computer program code for executing the steps of method claim 98, the objections concerning lack of inventiveness of claim 98 apply accordingly.

9 Document D4, which is considered to represent the closest prior art for the subject matter of claim 110, discloses (the references in parentheses applying to this document):

A method for generating a composite user interface comprising a plurality of user interface elements provided by at least one source application (page 7, sap Netweaver through the composite application framework permits the construction of composite application based on existing applications parts or data see also page 11 and the composite application framework), the method comprising selecting said composite user interface from a plurality of predefined composite user interfaces (page 10, the composite application platform comprises templates of the User interface-hence predefined user interface that can be used to construct the composite user interface).

9.1 The method defined in independent claim 110 differs from that disclosed in D4 in that:
-   the UI template is chosen on the basis of at least one predefined parameter.

9.2 The objective technical problem to be solved by the present invention may therefore be regarded as how to select a composite UI interface.

9.3 The solution proposed by the present application Is considered to be not inventive since choosing a template on the basis of a predefined parameter is merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to solve the problem posed.

9.4 Therefore the subject matter of claim 110 does not involve an inventive step in the sense of article 33(3) PCT.

9.5 Since claim 119 and 129 relate to an apparatus having only features that correspond to the steps of method claim 110, the objections concerning lack of inventiveness of claim 110 apply accordingly.

9.6 Since claim 128 relates to a data-carrier carrying computer program code for executing the steps of method claim 110, the objections concerning lack of inventiveness of claim 110 apply accordingly.

10 Inventiveness of dependent claims 1-16, 18-47, 51-79, 81-95, 99-102, 106-109 and 111-127, Article 33(3) PCT

10.1 The dependent claims 1-16, 18-47, 51-79, 81-95, 99-102, 106-109 and 111-127, do not appear to contain any additional feature which, on the light of the available prior art and in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to inventive step.

Re Item VII
Certain defects in the international application

11 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in documents D1-D4 is not mentioned in the description, nor are these

documents identified therein.

11.1 All independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate.

11.2 The features of the claims 1-129 are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT). PCT, which in the present case would be appropriate.

11.3 The general statement in the description on page 95 refers to the "spirit of the invention". When used to interpret the claims, it indicates that subject-matter for which protection is sought could differ from the subject-matter of the claims, thereby rendering the scope of the claims unclear (Article 6 PCT, PCT guidelines, C-III 4.3a).